NATIONAL AERONATUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, FLORIDA

JUSTIFICATION FOR OTHER THAN FULL AND OPEN COMPETITION

(BRAND NAME DETERMINATION)

ESTIMATED ITEM VALUE: $1,260.00 per limit switch/bracket assembly
ESTIMATED TOTAL VALUE OF PROCUREMENT: $3,780.00

1.) Based on the justification provided herein, I recommend that an acquisition be made by other than full and open competition for the contract action described below:

2.) This contract action includes the acquisition of three (3) TopWorx DXP Series limit switches (PN DXP-MX1GNEB) and three (3) TopWorx mounting brackets (PN 4N20080-G41S). The limit switches and brackets will be used by NASA KSC to indicate valve positioning for three post-liftoff bypass valves in the Ignition Overpressure and Sound Suppression System (IOP/SS).

3.) The IOP/SS System provides water sprays at Launch Complex 39B (LC-39B) through the Mobile Launcher (ML) to reduce the effects of the launch-induced environment, including ignition overpressure, sound suppression, and flame trench/ground support equipment (GSE) cooling. The reduction of launch induced effects is critical to the success of the Space Launch System (SLS) vehicle and its mission. The effective reduction of the launch induced phenomena, including ignition overpressure and sound suppression, requires a large volume of water deployed on and around the ML at precise times and in specific quantities as dictated by NASA Marshall Space Flight Center (MSFC) through requirements, verified during the Scale Model Acoustical Test (SMAT). The limit switches and brackets described in this action are required to provide valve monitoring indications critical to the launch countdown process. Improper indications could lead to loss of mission or vehicle and crew. The total estimated value is $1,260.00 per limit switch/bracket assembly. There are three (3) limit switches/bracket assemblies needed for this contract action for a total cost of $3,780.00.

4.) Contracting without full and open competition is permitted pursuant to 10 U.S.C. 2304 (c) (1) because the equipment required by KSC is only available from one source and no other type of equipment will fully satisfy the requirements. There is a reasonable basis to conclude that KSC's minimum requirements can only be satisfied by the unique equipment available from TopWorx. The TopWorx DXP Series limit switch (PN DXP-MX1GNEB) and TopWorx mounting bracket (PN 4N20080-G41S) represents the only known device capable of meeting all of KSC's requirements as described below:

a. The limit switch must provide discrete open/close indication of valve position.

b. The limit switch must provide analog percent valve open indication of valve position.

c. The limit switch must interface with the current control infrastructure without modification.

d. The limit switch must have proven compatibility with the sea coast environment experienced at KSC.

e. The limit switch must have proven capability of withstanding the launch environments experienced at LC-39B.

f. The limit switch must have proven capability to withstand valve transitions from close to open within 0.5 seconds without failure.

5.) The government utilized these actuator types in the IOP/SS system during the Space Shuttle Program and they have proven capable of meeting all of government's requirements including performance and environmental compatibility. The IOP/SS system has six (6) existing TopWorx DXP Series limit switches (PN DXP-MX1GNEB) and six (6) existing TopWorx mounting brackets (PN 4N20080-G41S) currently installed at LC-39B. The purchase and installation of the three (3) TopWorx DXP Series limit switches (PN DXP-MX1GNEB) and three (3) TopWorx mounting brackets (PN 4N20080-G41S) at LC-39B will maintain IOP/SS limit switch similarity reducing capital expenditures of spare parts, service, and training. Procuring anything other than these items will require the contractor to qualify the components for use in our environments at a significant cost and schedule impact. Additionally, these items are known to interface with the other components of the IOP/SS system without further modifications to the system. Procuring different parts will require additional work to ensure they will function as a unit, once installed.

6.) Efforts will be made to ensure that offers are solicited from as many potential sources as practicable. The project specifications for the TopWorx DXP Series limit switches (PN DXP-MX1GNEB) and TopWorx mounting brackets (PN 4N20080-G41S), written to fully explain the government's requirements regarding limit switches for the IOP/SS system, will be included in the solicitation specifications. Additionally, this Brand Name Determination will be posted with the solicitation on the Federal Business Opportunities website www.fbo.gov .

7.) It is determined that the price of the prime contract, including the TopWorx DXP Series limit switches (PN DXP-MX1GNEB) and TopWorx mounting brackets (PN 4N20080-G41S), will be fair and reasonable. The overall competitive nature of this low price technically acceptable procurement will entice bidders to seek the most advantageous pricing from TopWorx authorized distributors and supply

houses as well as reasonable pricing from all other equipment and material suppliers.

8.) Future actions to remove barriers to competition will include continued efforts to reach out to other manufacturers for compatible limit switches and brackets in order to reduce the amount of equipment that must be procured on a single manufacturer basis.

Pursuant to FAR 6.303-2(c), I hereby certify that the supporting data furnished in support of contracting by other than full and open competition, under 10 U.S.C. 2304(c) (1), with TopWorx for the purchase of three (3) limit switches / bracket assemblies is complete and accurate to the best of my knowledge and belief.

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